



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,013	09/05/2003	Subhasish Mitra	ITL0971US (P16171)	8151
21906 7590 11/14/2008 TROP PRUNER & HU, PC 1616 S. VOSS ROAD, SUITE 750 HOUSTON, TX 77057-2631				
EXAMINER				
CHUNG, PHUNG M				
ART UNIT		PAPER NUMBER		
2117				
MAIL DATE		DELIVERY MODE		
11/14/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/656,013

Applicant(s)

MITRA ET AL.

Examiner

PHUNG My CHUNG

Art Unit

2117

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 5-10 and 12-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5-10 and 12-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The indicated allowability of claims 1, 3, 5-10, 12-20 and 22-25 is withdrawn.

The rejections are as follow:

Claims 2, 4, 11 and 19-25 have been canceled.

Claims 1, 3, 5-10 and 12-18 are still pending.

Claim Rejections - 35 USC § 112

2. Claims 1, 3, 5-10 and 12-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, lines 2-3, "adding at least two columns...for each scan chain that, at the same time as another scan chain, produces an unknown logic value" is not very clear to what it meant. The phrase "adding at least two columns... for each scan chain" is vague and indefinite because it is not clear whether the at least two columns of each scan chain are at the beginning or in the middle or at the output or some where in the scan chain of the each scan chain. The phrase "at the same time as another scan chain" is not clear what scan chain is considered as another scan chain? Appropriate correction and/or clarification is required.

As per claim 3, lines 1-2, "the maximum number of scan chains...at the same time" what number is the maximum number of scan chains...at the same time? Appropriate correction and/or clarification is required.

As per claim 5, lines 1-2, "reducing the compactor matrix using maximum compatibility class problem" is not clear to what it meant. What is meant by using

maximum compatibility class problem? Appropriate correction and/or clarification is required.

As per claim 6, this claim is also rejected because it dependent upon the rejected base claim.

As per claim 7, line 3, "the number of unknown logic values" does not have a clear antecedent basis.

As per claim 8, line 1, "the matrix rows" does not have a clear antecedent basis; and

Line 4, "the column values zero, zero, followed by the column value one" is applicant meant - - the column value zero, zero followed by the column value one - -? Appropriate correction and/or clarification is required.

As per claim 9, line 1, "A response compactor formed by a process including the steps of,..." is a hybrid claim because system and method can not be claimed in the same claim. Therefore, depend claims 10, 12-15 and 17-18 are also hybrid claims.

In addition to claim 9, lines 5-6, "adding at least two columns..., at the same time as another scan chain,..." is not very clear as to what it meant. The "another scan chain" is indefinite. What scan chain is considered as "another scan chain"? Appropriate correction and/or clarification is required.

As per claim 10, line 3, "the maximum number of circuit outputs" does not have a clear antecedent basis.

As per claim 12, line 1, "a process" should be changed to - - the process - -; and

Lines 1-2, "including reducing the compactor matrix using maximum compatibility class problem" is not clear as to what it meant. What is meant by "using maximum compatibility class problem"? Appropriate correction and/or clarification is required.

As per claim 13, this claim is also rejected because it dependent upon the rejected base claim.

As per claim 14, this claim is also rejected because it dependent upon the rejected base claim.

As per claim 15, line 2, "the matrix rows" does not have a clear antecedent basis.

As per claim 16, lines 2-3, "a plurality of coupled exclusive OR gates to handle any number of scan chains with unknown logic value" is not clear how these exclusive OR gates handled any scan chains with unknown logic value;

Lines 4-5, "a control...as another scan chain" is not very clear as to what it meant. The phrase "adding at least two columns... for each scan chain" is vague and indefinite because it is not clear whether the at least two columns of each scan chain are at the beginning or in the middle or at the output or some where in the scan chain of the each scan chain. The phrase "at the same time as another scan chain" is not clear what scan chain is considered as another scan chain?

In addition, lines 3-4, "a control to add...for each scan chain that produces an unknown value at an unknown logic value" is not clear as to what it meant; and

Lines 2-5, "a plurality of coupled exclusive OR gates...; and

A control to add two columns to a compactor matrix..." the interconnection and/or interrelation between the control and the plurality of coupled exclusive OR gates is unclear. Appropriate correction and/or clarification is required.

As per claim 17, lines 1-2, "to handle any number of errors in the same scan cycle" is not clear how it handled the errors in the same scan cycle. Appropriate correction and/or clarification is required.

As per claim 18, lines 1-2, "the minimum number of scan outputs" is not clear what number is considered as the minimum number. Appropriate correction and/or clarification is required.

3. Applicant's arguments with respect to claims 1, 3, 5-10 and 12-18 have been considered but are moot in view of the new ground(s) of rejection.
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **PHUNG My CHUNG** whose telephone number is (571)272-3818. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on 571-272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Phung My Chung/
Primary Examiner
Art Unit 2117